



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,230	04/07/2006	Norihiro Suzuki	1391.1072	6966
21171	7590	06/24/2010		
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			EXAMINER SANDERS, HOWARD J	
			ART UNIT 3653	PAPER NUMBER
			MAIL DATE 06/24/2010	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/575,230

**Applicant(s)**

SUZUKI ET AL.

**Examiner**

Howard Sanders

**Art Unit**

3653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 March 2010.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1,2 and 4-7 is/are rejected.  
7) ☒ Claim(s) 1 and 3 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 07 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB-08)  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_  
Paper No(s)/Mail Date \_\_\_\_\_

### **DETAILED ACTION**

In view of the Appeal Brief filed on 03/24/10, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/Saúl J. Rodríguez/

Supervisory Patent Examiner, Art Unit 3652.

### ***Claim Objections***

Claim 5 is objected to because of the following informalities: In the second to last line "weights" was recited when it appears "weighs" was intended. Appropriate correction is required.

### ***Response to Amendment***

Within the Appeal Brief filed 03/24/10 reference to a concurrent amendment was made. The Examiner found no such amendment on record; therefore, the following action is responsive to the claims of the amendment filed 06/08/09.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, and 4-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Takatoshi et al. US 5,755,434. Regarding claims 1 and 4-6, Takatoshi et al discloses a bottom removal type paper supply apparatus having:

a paper support base (2) on which paper is stacked located at a bottom part of the bottom removal type paper supply apparatus;

a first pickup roller (51) provided at an end portion of the paper stacked on the paper support base, on a side toward a body of the bottom removal type paper supply apparatus and which picks a paper sheet from the paper stacked on the paper support base from the bottom and transports the paper sheet on a paper path;

a pressing roller (50) which may apply pressure to the paper stacked on the paper support base towards the first roller, and which is provided at the end portion of the paper stacked on the paper support base;

a second pickup roller (21) provided at a central portion of the paper stacked on the paper support base, and selectively assisting the first pickup roller to transport the paper sheet into the bottom removal type paper supply apparatus including when the paper stack weighs more than a prescribed weight; and

a shutter (including 60) switchable between an open state in which the paper is in contact with the second pickup roller enabling the second pickup roller to assist the first pickup roller to transport the paper on the paper path, and a closed state in which the shutter prevents contact between the paper and the second pickup roller, the shutter being provided on the second pickup roller (Column 5, lines 13-40 and Figures 10-12).

The shutter may prevent contact between the second pickup roller and the paper stack including while the paper stack weighs less than the prescribed weight.

The apparatus further comprising a sensor (52) located along the paper path to sense when the first pickup roller fails to transport the paper on the paper path while the shutter is in the closed state, and to send a control signal to switch the shutter in the open state, the shutter being controlled to be in the open state including when a failure of the first pickup roller to transport the paper on the paper path has occurred, and to be in the closed state while the first pickup roller successfully transports the paper on the paper path through the apparatus (see Column 4, line 66 – Column 5, line 40).

The shutter and the second pick-up roller have a common axis (for example (21b) in Figure 10), the shutter has at least one first portion that has an arcuate cross section (60a) which extends to a larger distance from the common axis than the pick-up roller, and at least one second portion (in the middle of 60), which extends to a smaller

distance from the common axis than the pick-up roller. The at least one first portion is in contact with the paper stacked on the paper support base when the shutter is closed.

Regarding claim 2, the pressure applied to the paper by the pressing roller is adjustable. Using sheets of different thicknesses will cause the pressure applied to be adjusted. Applicant is encouraged to claim actual components that enable that which has only been claimed thus far as a desired way of using parts of the apparatus. Such limitations are necessary when distinguishing apparatus claims from prior art devices.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takatoshi et al. in view of Kawano US 6,247,693 B1. Takatoshi et al. disclosed the limitations of claim 1 as listed above, but did not specify increasing the pressure to a sheet in steps. Kawano teaches having pressure applied to paper by a pressing roller (41) adjustable (see the last paragraph in Column 8). Furthermore the pressure applied to paper by the pressing roller is increased in steps (as described also in the top paragraph in Column 9). This would be true even if the first pick up roller (37) failed to transport paper for whatever reason. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the teachings of Kawano in the apparatus of

Takatoshi et al. to adjust and increase the pressure applied by the pressure rollers for efficient sheet feeding as taught by Kawano.

The Examiner further points out with regard to claim 7, that the feature, "wherein the pressure applied to the paper by the pressing roller is increased in steps" is conditionally claimed. If the pickup roller does not fail to transport paper, this feature is not required.

#### ***Allowable Subject Matter***

Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

Applicant's arguments filed 3/24/10 have been fully considered but they are not persuasive. Applicant asserted that the second pickup roller of Takatoshi cannot be called selectively assisting the first pickup roller. The Examiner maintains that according to the broadest reasonable interpretation the second pickup roller can be considered as selectively assisting the first pickup roller. Regardless of whether the first pickup roller may transport a sheet without the second pickup roller, each time the second pickup roller assists the first roller, it may be referred to as selectively assisting the first pickup roller.

Furthermore applicants argue that the first pickup roller of Takatoshi cannot be called pick a paper sheet from the stack. The examiner disagrees. The first pickup roller may reasonably be considered as picking sheets from the stack from the bottom.

Applicants further argue that, inherently the feeding roller (50) of Takatoshi applies a pressure equal to the roller's weight divided by the contact area. This is simply not true. The roller is not free standing rather is mounted on a supporting shaft. The applied pressure is not based on the roller's weight. The applied pressure will depend, however, on the thickness of the sheets fed. Therefore, the applied pressure of the pressing roller as disclosed in Takatoshi is adjustable.

### ***Conclusion***

Applicant's amendment on 06/08/09 necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of



the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Howard Sanders whose telephone number is 571-270-3096. The examiner can normally be reached on Mon - Fri, 7:15 AM - 4:45 PM EST, Alt. Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saul Rodriguez can be reached on 571-272-7097. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Saúl J. Rodríguez/  
Supervisory Patent Examiner, Art  
Unit 3652

/H. S./

Application/Control Number: 10/575,230

Page 9

Art Unit: 3653

Examiner, Art Unit 3653